

DQA:

Date:

2017-04-05



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date:

MAR 08 2017

Work Order update only ☐

Work Order: <u>155 812</u>		DISPOSITION		AGAINST DEPARTMENT/PROCESS					
Part No. <u>646-3310</u>		Rework ☐		Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐		
NCR No. <u>17-6310</u>		Scrap ☒		Machining ☒	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐		
		Use-as-is ☐		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐		
		Suspected Unapproved ☐		Large Fab ☐	Composite ☐	Supplier ☐			
Date: <u>17-02-02</u>		Step #: <u>160</u>		QTY Effective: <u>①</u>			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition			DAS 9 9-89 17-02-02 Completed By DAS 20 9-89 17-02-02 Lead hand / Supervisor Approval Verification B.A. 17-02-02 QC / QA Coordinator Approval DAS 9 9-89 17-02-02		
Part lifted during machining and the thickness is under tolerance				Scrap & Replace B 136 697					
Root Cause Environment ☐ No Re-verification ☐ Design ☐ Operator ☐ Doc/Data ☐ Offset/Setup ☐ Equip/Tooling ☐ Supplier ☐ Handling/Pre ☐ Training ☐ Material ☐ Use for Testing ☐ Internal Transport ☐ Poor Information ☐ Tribal Knowledge ☐ Rushing ☐ LOA ☐ Product Improvement ☐ Substation ☐ Process Improvement ☐ Past Expiry Date ☐ ☒ Manufacturing Process Misidentified ☐ Past Due ☐				FAULT CATEGORY Pressure/Forced ☐ Temperature/Cure ☐ Power Loss/Surge ☐ Positioned Wrong ☐ Bending ☐ Set-up ☐ Folio/Program ☐ Outside Dimensions ☐ Centre Not Concentric ☐ BOM/Route ☐ Grain ☒ Over/Under tolerance ☐ Cracks ☐ Broken/Damage/Defect ☐ Weld ☐ Part Incorrect ☐ Crimp/Kink/Ripple/Wave ☐ Inspection Incomplete/Unqualified ☐ Wrong Stock Pulled ☐ Part Lost/Missing ☐ Cuffs ☐ Contamination ☐ Out of Sequence ☐ Part Moved ☐ Crushing ☐ Countersink ☐ Off-set ☐ Drawing ☐ Heat Treat ☐ Cut Too Short ☐ Mis-labeled ☐ Finish ☐ Wave/Twist in Tube ☐ Instructions Incomplete/Unclear ☐ Fit/Function ☐ Misread ☐ Marks/Chatter ☐ Drill Holes ☐ Misaligned/off center ☐ Turning Sequence ☐					
OTHER: ☐									

155812

Wednesday, January 18, 2017 7:39:44 AM

N900040100

Setup Start *NS1*

Stop *NS2*

4

4

Customer:

Reference:

Run Start *NR1*

Stop ***NR2***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

130

QC8- Inspect parts - second check

0.00

130

QC

Memo

0.01

Quality Control

140

Outsource process-Anodize per QSI017 4.1.10.1

0.00

140

Outsource4

Memo

120.00

Outsource process - Anodize

Issue P/O to ATG : 35239

1- Black Anodize as per Dwg 646.3300

2- PRIME AS PER DWG, SEE NOTE #2

Certification of Comformity is required

150

Receive & Inspect for Damage & Mat'l Certs

0.00

150

Packaging

Memo

0.01

Packaging

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabelled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : _____			

Work Order ID 155812***155812***

Page 3

Wednesday, January 18, 2017 7:39:44 AM

Item ID: 646.3310 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: LH Half - Upper Cutter Assembly
Start Date: 12/19/2016 Start Qty: 4.00 ***4*** Cust Item ID:
Required Date: 1/17/2017 Req'd Qty: 4.00 ***4*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
155 *155* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo <i>1.2 mils thickness primer</i>	0.00 0.01				<i>8</i>			<i>68-6 38 DAS MAR 03 2017</i>
180 *180* Packaging Packaging	Identify as per dwg & Stock Location: <i>ck022</i> Memo ***IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV***	0.00 0.01				<i>8</i>			<i>MAR 01 2017 DAS 6 9-89</i>
190 *190* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.01							<i>17/3/16</i> <i>DAS 21 9-89 MAR 03 2017</i>

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

Tuesday, January 17, 2017 1:20:12 PM

Page 1

Work Order ID: 155812

155812

Parent Item: 646.3310

646.3310

Parent Item Name: LH Half - Upper Cutter Assembly

Start Date: 12/19/2016

Required Date: 1/17/2017

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP REV:A NEW ISSUE 12/11/17 JFS VERIFY BY: JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M7075T6B7.000X2.000		Purchased	No				f	11.1458		4.694737			

M7075T6B7 000X2 000

7075-T6 BAR 7.000" X 2.000" (order in billets - 13.375")

Location

Loc Qty

Loc Code

MAT001

11.1458

m136072

11.1458

M136715

~~26~~ 2.2088

6.688

17-02-01

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

DART AEROSPACE LTD		Work Order: 155812
Description: LH Half		Part Number: 646.3310
Inspection Dwg: 646.3300 Rev: NC3		Page 1 of 1

INSPECTION SHEET

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
7.296	+/-0.005	7.296			Height gauge	
3.767	+/-0.005	3.767				
0.457	+/-0.005	0.457				
0.313	+/-0.005	0.312				
0.710	+/-0.005	0.710				
6.469	+/-0.005	6.469				
10.116	+/-0.005	10.116				
10.309	+/-0.005	10.309				
Ø0.177	+0.005/-0.001	0.177			gauge pin	
Ø0.209	+0.005/-0.001	0.209				
0.250	+/-0.005	0.255			vern LPO9	
1.250	+/-0.005	1.250				
R0.125	+/-0.005	0.125			rod gauge	
3.513	+/-0.005	3.513			Height gauge	
8.375	+/-0.005	8.370				
0.250	+/-0.005	0.250			vern LPO9	
8.1°	+/-0.5°	8.1			Protractor	
11.689	+/-0.005	11.689			Height gauge	
11.250	+/-0.005	11.250				
0.200 x 45°	+/-0.005	0.200			vern	

Measured by: <i>P</i>	Checked by: <i>B.A.</i>	QC Inspector:
Date: 17-02-01	Date: 17-02-03	Date:

Engineering Approval: (If necessary)	Date:
--	--------------

Rev	Date	Change	Revised by	Approved
A	14.06.25	New Issue	KJ	
B	16.08.29	Dwg Rev updated		

APICAL

INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO.

04765

SHEET 1 OF 1

DWG NO. 646.3300

REV: NC

PREPARED
BY

J. SOTO

DATE: 12/08/2014

EFFECT ON DWG

☐ INC. ☒ UNINC.

DWG TITLE: UPPER CUTTER ASSY

APPROVED BY: ENGR

MFG

QC

EFF.

NEXT ORDER

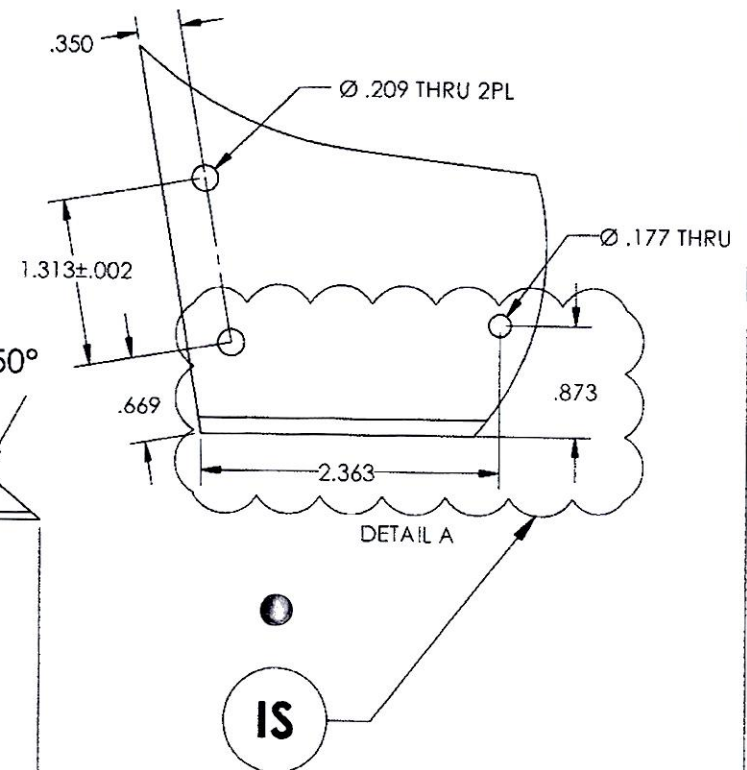
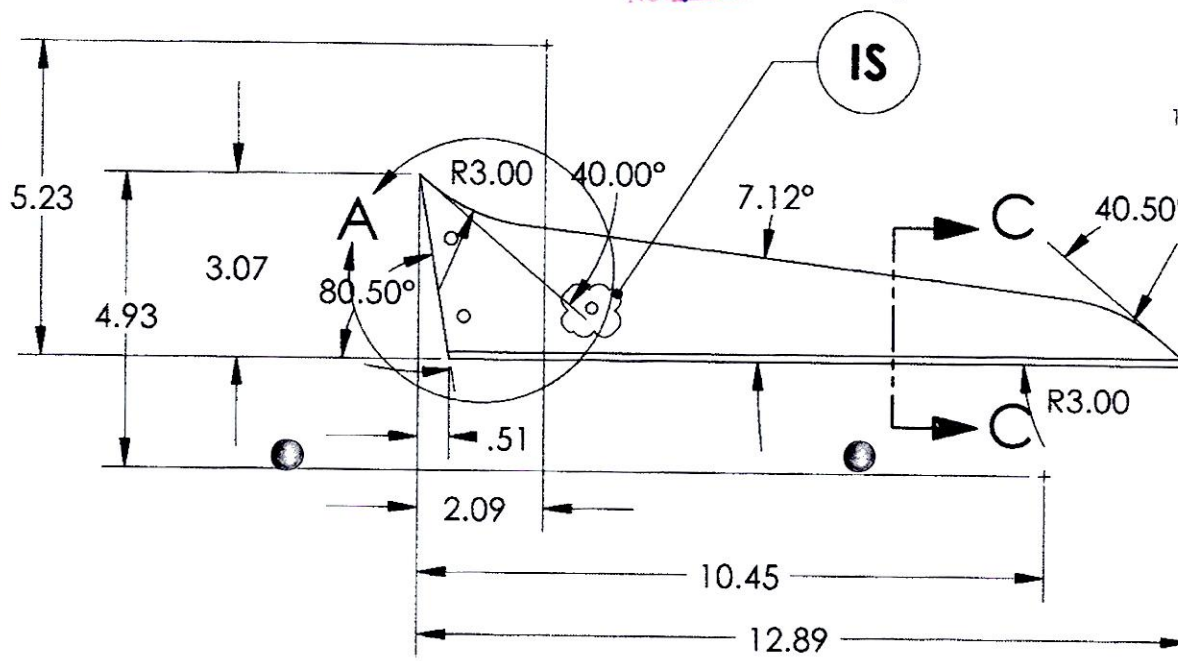
TRANSACTION CODES (TC):

A-ADD
R-REVISEC-CREATE
D-DELETE

REASON: ADDED HOLE DIMENSION TO 646.3313.

SHEET 5 IS:

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 155812 MLJ, 17 01-23



DOCUMENTS EFFECTED:

☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☐ BOM

CHANGE CATEGORY

☐ MAJOR ☒ MINOR

DER REVIEW REQUIRED

☐ YES ☒ NO

APICAL
INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO. 03724

SHEET 1 OF 1

DWG NO. 646.3300

REV: N/C

PREPARED
BY B. PETERS

DATE: 12/05/12

EFFECT ON DWG
☐ INC. ☒ UNINC.

DWG TITLE: UPPER CUTTER ASSY

APPROVED BY:

ENGR

MFG

QC

EFF: NEXT ORDER

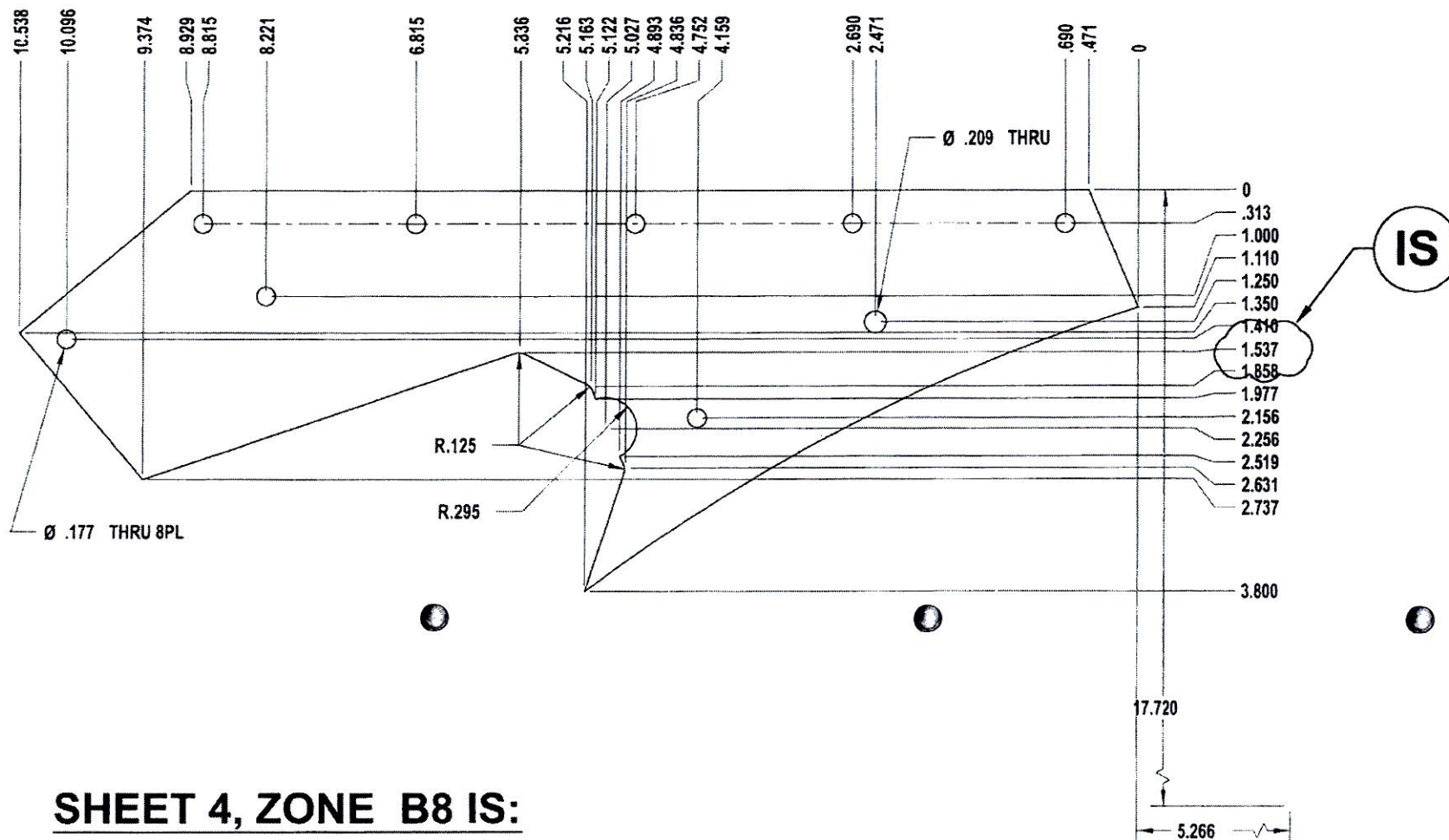
TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

REASON:

REVISED ORDINATE DIMENSION.

ECR:

D-12-025



SHEET 4, ZONE B8 IS:

DOCUMENTS EFFECTED:

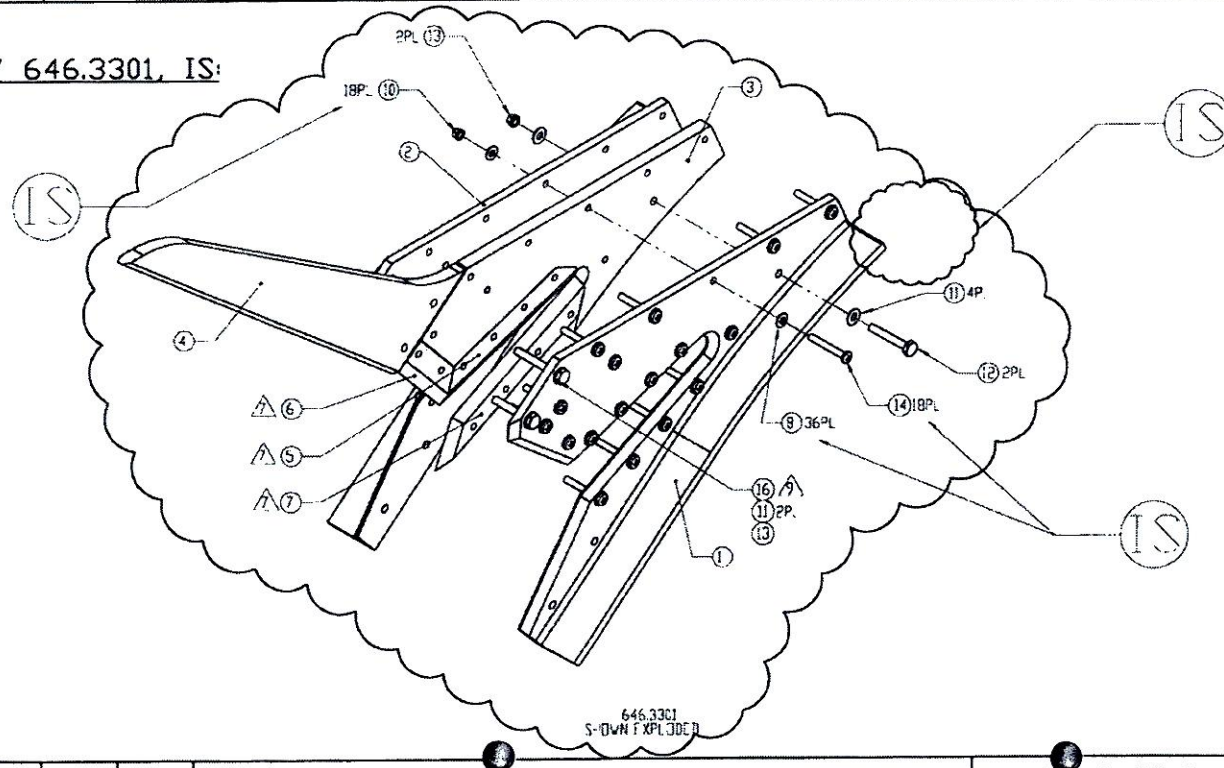
☐ RFMS ☐ MDL ☐ INSTALL INSTRU ☐ ICA ☐ BOM

CHANGE CATEGORY
☐ MAJOR ☒ MINOR

DER REVIEW REQUIRED
☐ YES ☒ NO

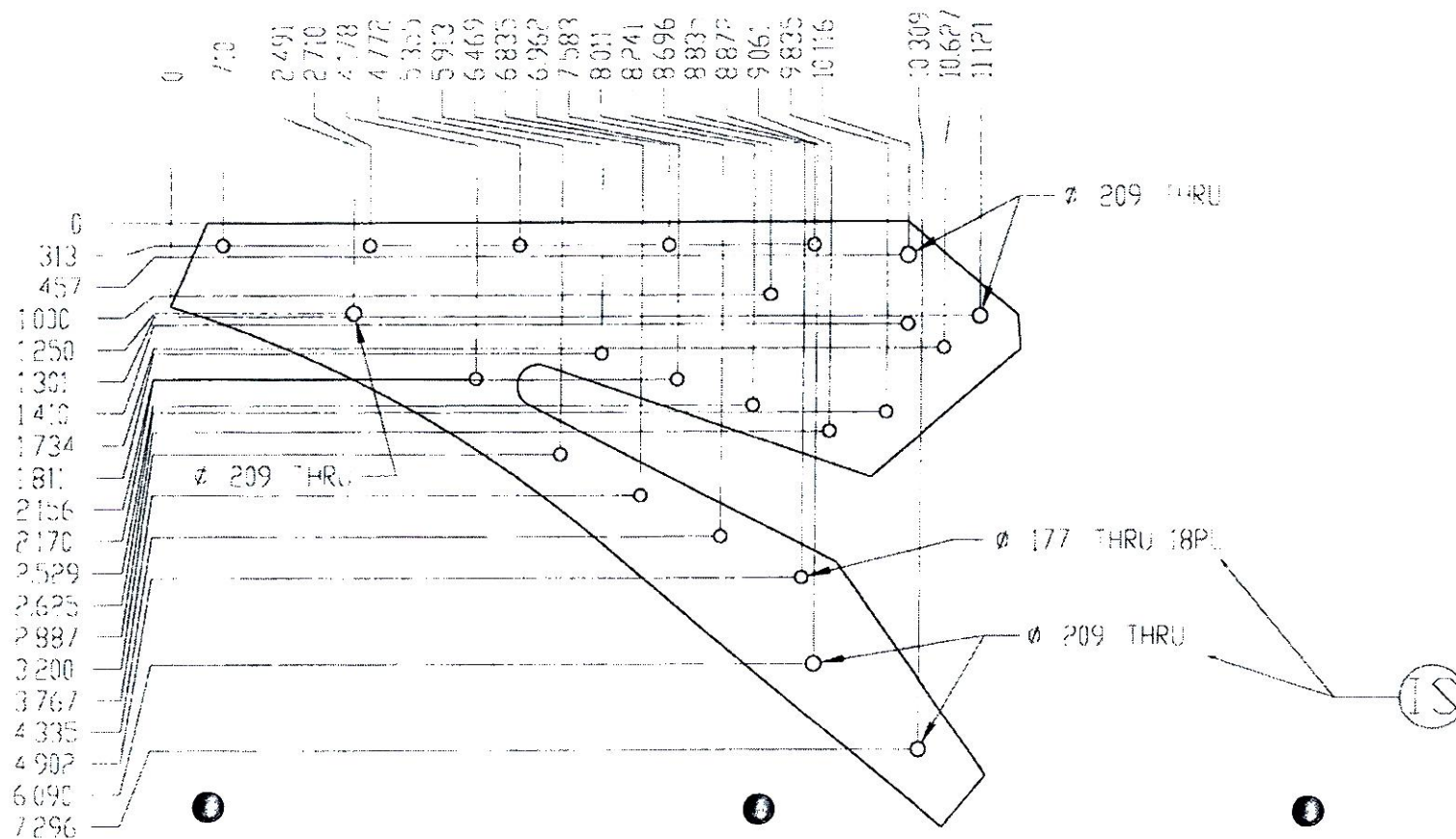
APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 02196			SHEET 1 OF 2	
	DWG NO. 646.3300	REV: N/C	PREPARED BY S. HUFF	DATE: 01/05/09	EFFECT ON DWG ☐ INC. ☒ UNINC.
	DWG TITLE: UPPER CUTTER ASSY				
	APPROVED BY: ENGR <i>[Signature]</i>	MFG <i>[Signature]</i>	QC <i>[Signature]</i>	EFF: NEXT ORDER	
TRANSACTION CODES (TC): A-ADD C-CREATE R-REVISE D-DELETE		REASON: REMOVED RIVETS IN FAVOR OF ADDITIONAL SCREWS			

SHEET 1, VIEW 646.3301, IS:



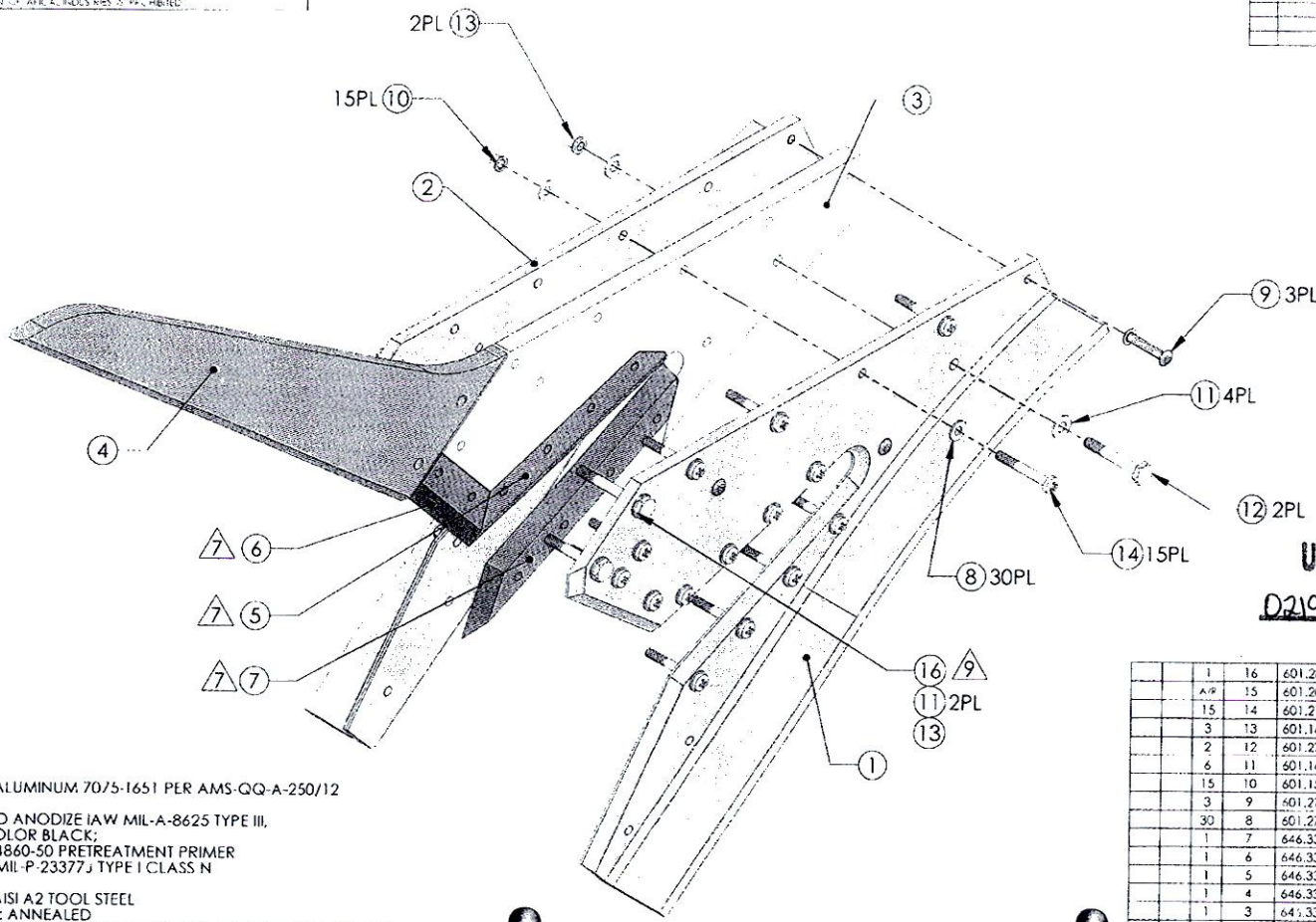
14	R	601.2765	18	SCREW	MS27039-0819
10	R	601.1541	18	LOCKNUT	MS21042L08
9	D	601.2766	3	RIVET	MS20470AD5-18
8	R	601.2764	36	WASHER	NAS1149FN832P
			.3301		
F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION
DOCUMENTS EFFECTED:				☐ MDL ☒ INSTALL INSTRUC ☒ ICA ☐ FMS ☒ BOM	CHANGE CATEGORY ☐ MAJOR ☒ MINOR
				DER REVIEW REQUIRED ☐ YES ☒ NO	

SHEET 3, SECTION VIEW A-A, IS:



F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION
-----	----	-------------	-----	-------------	------------------------

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UNINCORPORATED ECN(s)
02196, 03724, 04765

NOTES:

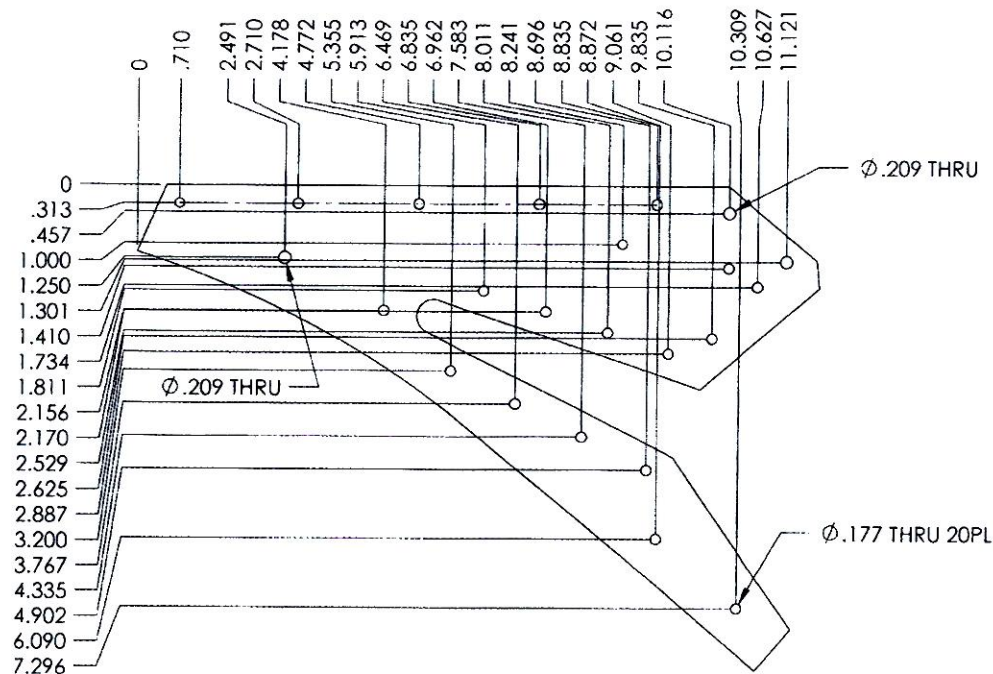
- 1 MATERIAL: ALUMINUM 7075-T6 PER AMS-QQ-A-250/12
- 2 FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2, COLOR BLACK; CARDINAL 4860-50 PRETREATMENT PRIMER PRIME IAW MIL-P-23377 J TYPE I CLASS N
- 3 MATERIAL: AISI A2 TOOL STEEL CONDITION: ANNEALED POST PROCESS: HEAT TREAT TO 58-62 Rc ROCKWELL HARDNESS
- 4 FINISH: PRIME IAW MIL-P-23377 J TYPE I CLASS N
- 5 DEBURR AND BREAK ALL SHARP EDGES EXCEPT WHERE OTHERWISE NOTED
- 6 IDENTIFY IAW MPP-120
- 7 APPLY F/N 15 AS REQUIRED TO ALL FAYING SURFACES OF F/N 5, 6 & 7 UPON ASSEMBLY
- 8 CUTTING EDGE INTENDED TO BE SHARP, DO NOT BREAK SHARP EDGE
- 9 INSTALL FASTENER FINGER-TIGHT

646.3301
 SHOWN EXPLODED

QTY	REV	DATE	DESCRIPTION	MATL	SPEC.
1	16	601.2834	BOLT		
15	15	601.2045	RTV, LOCTITE 598		
15	14	601.2765	SCREW	MST103M-GB19	
3	13	601.1624	LOCKNUT	MST104G15	
2	12	601.2763	BOLT	AND-12F	
6	11	601.1607	WASHER	HAS114990330P	
15	10	601.1541	LOCKNUT	MST104G15B	
3	9	601.2766	RIVET	MST104G15B	
30	8	601.2764	WASHER	HAS114990330P	
1	7	646.3316	BLADE		
1	6	646.3315	BLADE		
1	5	646.3314	BLADE		
1	4	646.3313	UPPER GUIDE		
1	3	641.3312	CENTER PLATE		
1	2	646.3311	RH HALF		
1	1	646.3310	LH HALF		
1	1	646.3301	UPPER CUTTER ASSY		
QTY	REV	DATE	DESCRIPTION	MATL	SPEC.
1	16	601.2834	BOLT		
15	15	601.2045	RTV, LOCTITE 598		
15	14	601.2765	SCREW	MST103M-GB19	
3	13	601.1624	LOCKNUT	MST104G15	
2	12	601.2763	BOLT	AND-12F	
6	11	601.1607	WASHER	HAS114990330P	
15	10	601.1541	LOCKNUT	MST104G15B	
3	9	601.2766	RIVET	MST104G15B	
30	8	601.2764	WASHER	HAS114990330P	
1	7	646.3316	BLADE		
1	6	646.3315	BLADE		
1	5	646.3314	BLADE		
1	4	646.3313	UPPER GUIDE		
1	3	641.3312	CENTER PLATE		
1	2	646.3311	RH HALF		
1	1	646.3310	LH HALF		
1	1	646.3301	UPPER CUTTER ASSY		

APICAL INDUSTRIES
 2608 TEMPLE HEIGHTS DR.
 OCEANSIDE, CA. 92056-3512 (760)774-5300
 UPPER CUTTER ASSY
 646.3300
 SCALE: NONE
 SHEET 1 OF 8

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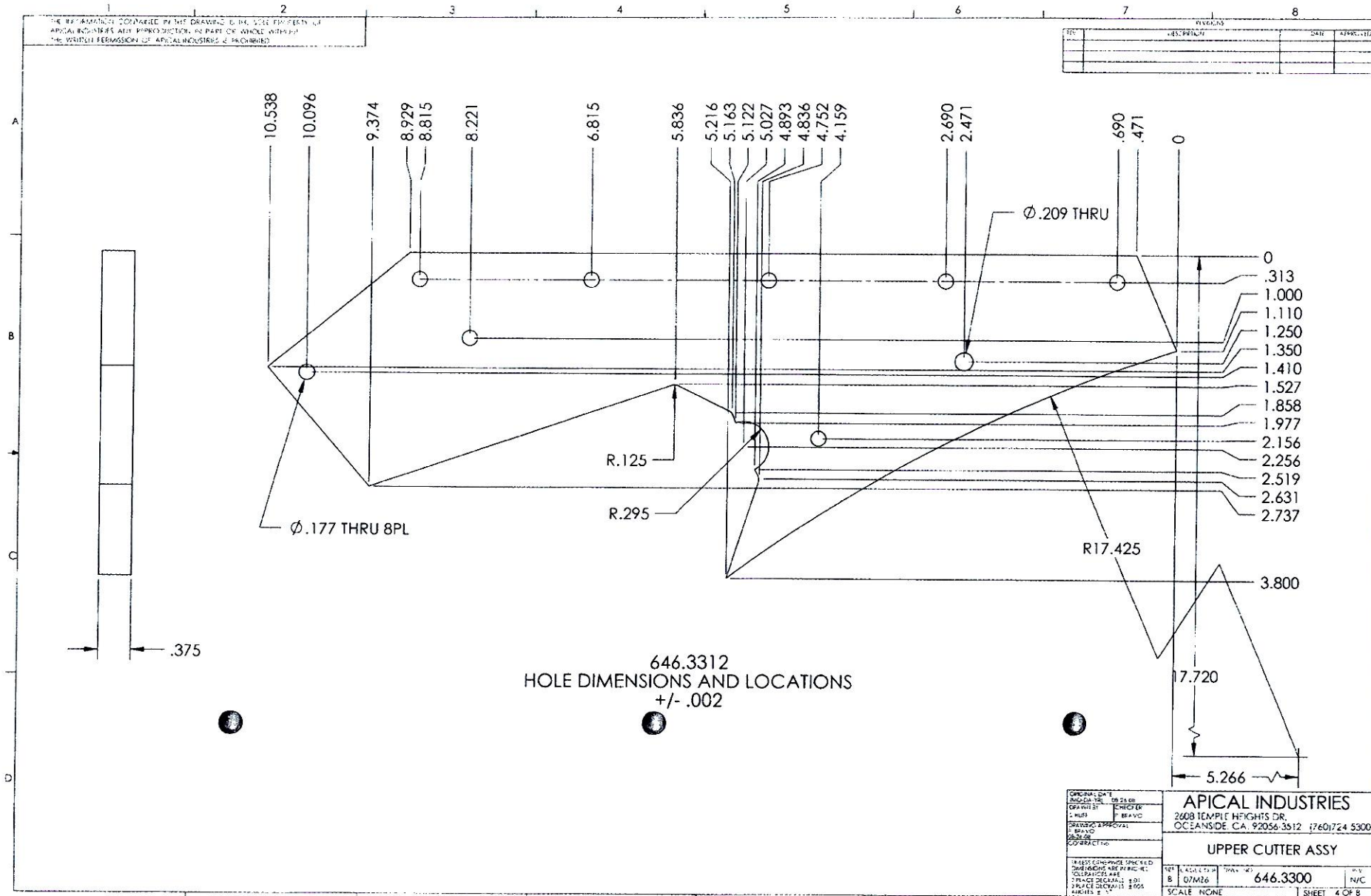
SECTION A-A

SECTION B-B

ORIGINAL DATE: 10/27/10 DRAWN BY: J. B. B. B. CHECKED BY: J. B. B. B. DESIGNED BY: J. B. B. B. APPROVED BY: J. B. B. B.		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA 92056-3512 (760) 724-5300	
UPPER CUTTER ASSY		SCALE: NONE	
PART NUMBER: 646.3300		SHEET 3 OF 8	

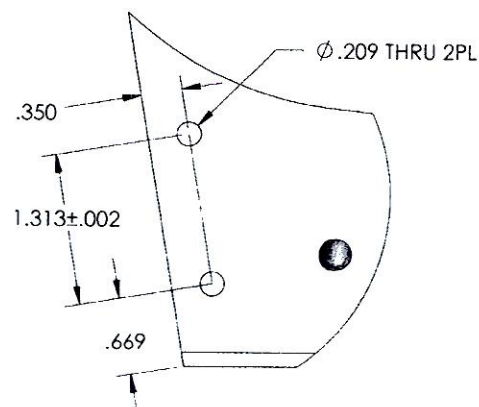
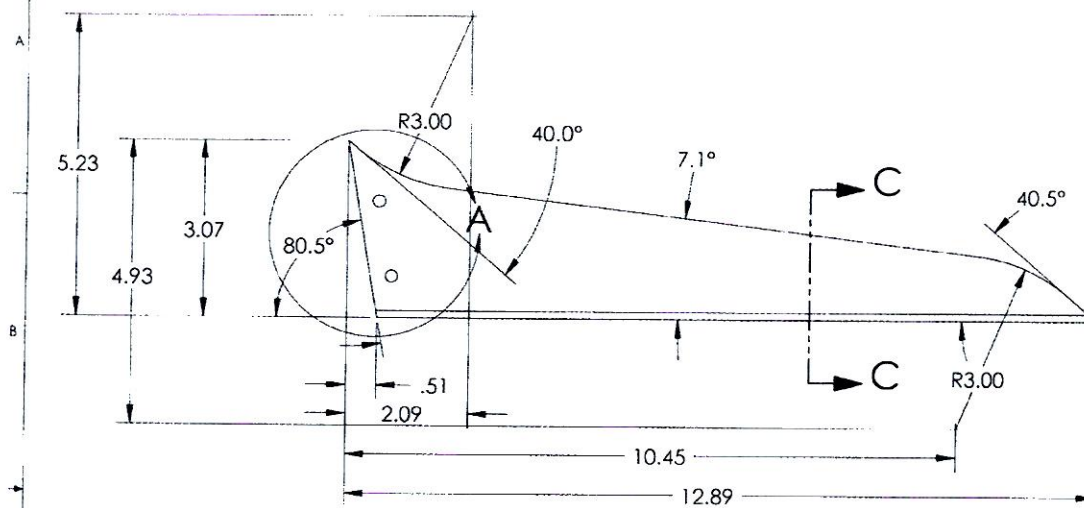
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REV	DESCRIPTION	DATE	APPROVED

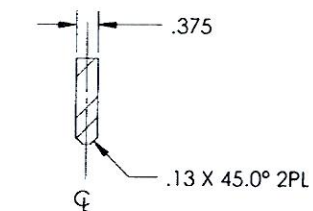


ORIGINAL DATE	DESIGNER	APICAL INDUSTRIES	
APPROVED BY	ENGINEER	2608 TEMPLE HEIGHTS DR.	
DATE	BRAND	OCEANSIDE, CA 92056-3512 (760) 724 5300	
DRAWING APPROVAL	BRAND	UPPER CUTTER ASSY	
DATE	CONTRACT NO.	646.3300	
REVISIONS (CHANGE SHEET NO.)		SCALE	SHEET 4 OF 8
1. HOLE DIMENSIONS SPECIFIED		8. 07M26	N/C
2. DIMENSIONS ARE IN INCHES		SCALE NONE	
3. DIMENSIONS ARE IN INCHES		SCALE NONE	
4. DIMENSIONS ARE IN INCHES		SCALE NONE	

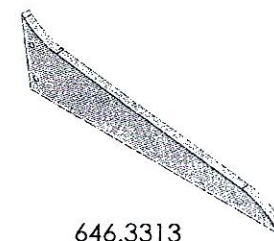
REV	DESCRIPTION	DATE	APPROVED



DETAIL A



SECTION C-C

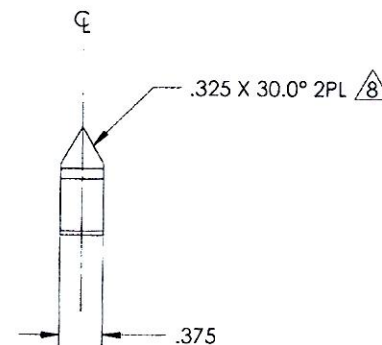
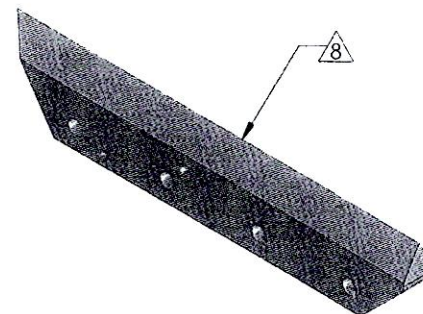
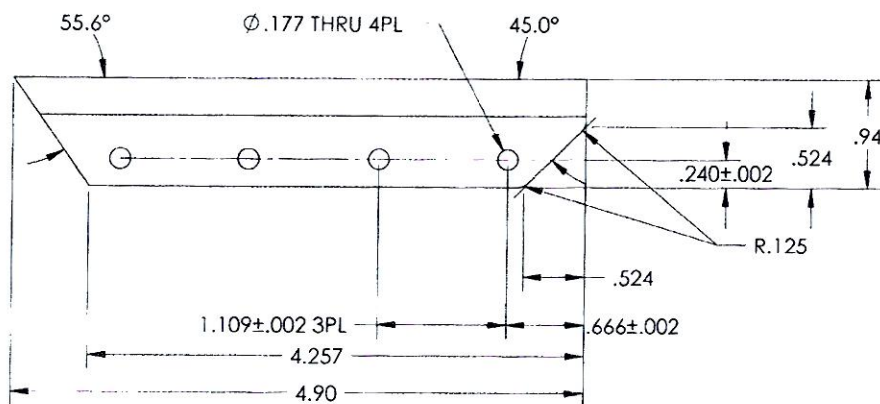


646.3313

[illegible]

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REV.	DESCRIPTION	DATE	APPROVED
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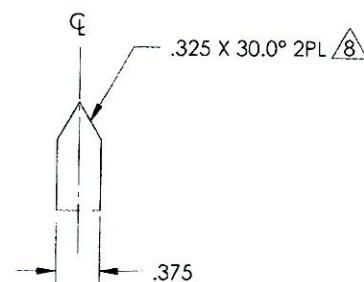
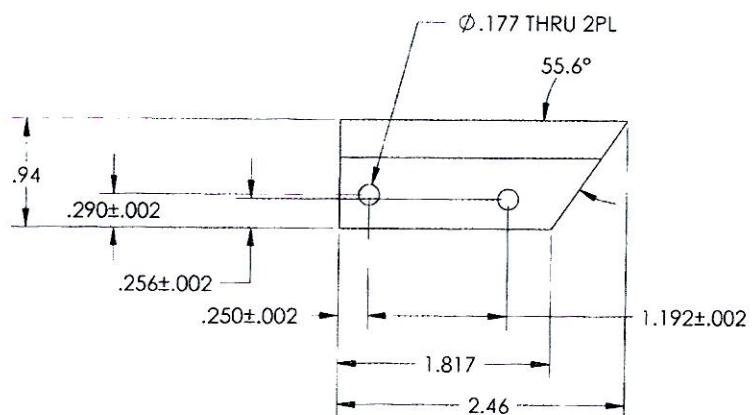
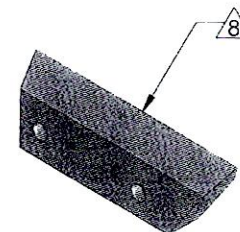


646.3314

ORIGINAL DATE: 10/20/08 DRAWN BY: C. HIGGINS CHECKED BY: P. BRAY DRAWING APPROVAL: P. BRAY DATE: 08/20/09 ELECTRICAL:		APICAL INDUSTRIES 2606 TEMPLE HEIGHTS DR. OCEANSIDE, CA 92056-3512 (760) 724-5300	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS .0000 .0005 .0010 .0015 .0020 .0030 .0040 .0050 .0060 .0070 .0080 .0090 .0100 .0150 .0200 .0300 .0400 .0500 .0600 .0700 .0800 .0900 .1000 .1500 .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000 1.0000 1.5000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.0000		SCALE: NONE	SHEET 6 OF 8
TEST: 07/03/08 SCALE: NONE	INCHES: 1/2 DECIMALS: 0.0005	646.3300	N/C

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REV.	DESCRIPTION	DATE	APPROVED

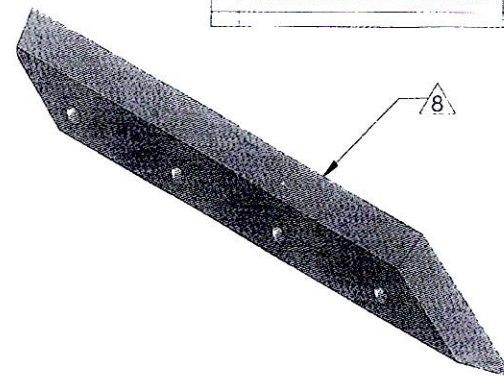


646.3315

ORIGINAL DATE 10/01/01 DRAWN BY S. HUI CHECKED BY P. BRAYO DRAWING APPROVAL P. BRAYO DATE 05-28-01	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR OCEANSIDE, CA 92056-3512 (760) 724-5300 UPPER CUTTER ASSY 646.3300 SCALE: NONE	NOT RECALCULATED 8 07/06/01 SCALE: NONE	REV. N/C SHEET 7 OF 8
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REVISION		DATE	APPROVED
1	ISSUED		
2			
3			

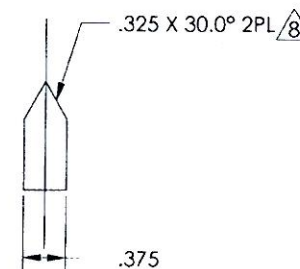
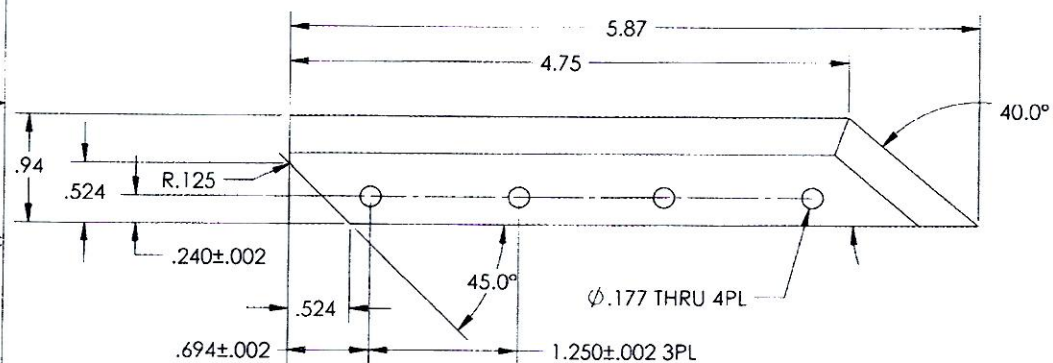


A

B

C

D



646.3316

ORIGINAL DATE 10/24/16 DRAWN BY T. HUI CHECKED BY B. VAO DRAWING APPROVAL 10/24/16 10/24/16 CONTRACT NO.		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760) 724-5300	
N. H. (V) HERALD SPECIES DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS FRACTIONS DECIMALS FRACTIONS DECIMALS		UPPER CUTTER ASSY 646.3300 SCALE: NONE	
SHEET 8 OF 8		SHEET 8 OF 8	



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO35239

Purchase Order Date 2/8/2017

PO Print Date 2/8/2017

Page Number 1 of 6

Order From :

VC-ATG001

A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE ROAD
ROCKLAND, ON K4K 1T2
CANADA

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA



Contact Name

Vendor Phone 613-446-4544

Ship To Contact

Ship To Phone

Ship Via: VENDOR'S TRUCK

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax # 10127-2607

Terms

Net 30

Currency

CAD

FOB

FCA - (Free Carrier)

FEB 08 2017

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	155812 DAS 38 9-89	646.3310 UPPER CUTTER REV. N/C	2/24/2017 Yes 2/24/2017		8.00	\$18.10	\$144.80
FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-PRF-23377K TYPE I CLASS N							
Line Total:							\$144.80
2	155708	646.3311 UPPER CUTTER REV. N/C	2/24/2017 Yes 2/24/2017		8.00	\$18.10	\$144.80
FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-PRF-23377K TYPE I CLASS N							
Line Total:							\$144.80
3	155841	646.3312 CENTER PLATE REV. N/C	2/24/2017 Yes 2/24/2017		8.00	\$12.05	\$96.40
FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-PRF-23377K TYPE I CLASS N							

PO Instructions: PRIMER IS SUPPLIED BY DART

Note:

2/8/2017



A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE STREET
ROCKLAND, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 912955

Date: 21-Feb-17

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

CHANTAL LAVOIE
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via	
Quantity	Description		
	PLEASE REFERENCE THE PACK LIST NUMBER ON ALL CORRESPONDENCE TO THIS SHIPMENT. IF YOU HAVE ANY QUESTIONS, PLEASE CALL AT (613) 446-4544.		
8 ea	Part: 646.3310 Upper Cutter	Rev: N/C	
DAS 38 9-89	Hard Black Anodize per MIL-A-8625F, Type III, Class 2 Primer per MIL-PRF-23377K, Type I, Class N Job: 19598	PO: PO35239	Line: 1
5 ea	Part: 647.4110 Doubler	Rev: N/C	
	Hard Black Anodize per MIL-A-8625F, Type III, Class 2 Primer per MIL-PRF-23377K, Type I, Class N Job: 20238	PO: PO35239	Line: 10
8 ea	Part: 647.4112 Clip	Rev: N/C	
	Hard Black Anodize per MIL-A-8625F, Type III, Class 2 Primer per MIL-PRF-23377K, Type I, Class N Job: 20411	PO: PO35239	Line: 11
8 ea	Part: 647.4113 Clip	Rev: N/C	
	Hard Black Anodize per MIL-A-8625F, Type III, Class 2 Primer per MIL-PRF-23377K, Type I, Class N Job: 20458	PO: PO35239	Line: 12
20 ea	Part: 650.9201 Eyelet Bracket	Rev: A	
	Hard Black Anodize per MIL-A-8625F, Type III, Class 2 Primer per MIL-PRF-23377K, Type I, Class N Job: 20470	PO: PO35239	Line: 13
20	Part: D2348	Rev: C	



A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE STREET
ROCKLAND, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 912955

Date: 21-Feb-17

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

CHANTAL LAVOIE
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms	Ship Via
Quantity	Description
	be subject to natural tarnishing and it is suggested that they be inspected within 24 hours of receipt.
	CERTIFICATE OF CONFORMANCE
	A.T.G. INDUSTRIES INC. CERTIFIES THAT ALL ITEMS IN THIS SHIPMENT CONFORM TO REQUIREMENTS.
	MADE IN CANADA.
	SP17-02-21